U.S. Cattle History, Cycles and Trends

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Cattle Inventory
U.S. CATTLE INVENTORY, 1867-2013

Source: USDA/NASS
U.S. CATTLE INVENTORY, 1867-2013

Mil. Head

2013: 89.3 million head, Down 1.6%
Lowest inventory since 1952

Source: USDA/NASS
Calf Crop
U.S. Calf Crop, 1945-2012

2012: 34.3 million head, Down 2.9%

Source: USDA/NASS
# January 2013 Cattle Inventory

<table>
<thead>
<tr>
<th>Category</th>
<th>% of year Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef cows</td>
<td>97.1</td>
</tr>
<tr>
<td>Beef heifers to calve</td>
<td>101.8</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>99.9</td>
</tr>
<tr>
<td>Dairy heifers to calve</td>
<td>95.5</td>
</tr>
<tr>
<td>Combined</td>
<td>97.9</td>
</tr>
</tbody>
</table>
Allied Industry:
fewer cattle makes for tight margins
Cattle Cycles
U.S. CATTLE INVENTORY, 1880-2013

Source: USDA/NASS
U.S. HOG INVENTORY, 1867-2013

Source: USDA/NASS
Why we have livestock cycles

• Because
  – Biology of animals: change takes time
Biological lags

• Cattle
  – 9 months from breeding to calving
  – 15-20 months from birth to slaughter

• Hogs
  – 4 months from breeding to farrowing
  – 6 months from birth to slaughter

• Chickens
  – 3 weeks from breeding to hatching
  – 6-8 weeks to slaughter
Why we have livestock cycles

• Because
  – Biology of animals: change takes time
  – Farmers get old
    • Young farmers wanting to expand
    • Older farmers wanting to cut back
  – Bankers want loans to be repaid
    • Loan to borrowers with equity
Livestock cycle

- High prices for a while
- Leads to surplus cash
- Leads to credit worthiness
- Leads to increased breeding
- Leads to increased production
- Leads to low prices for a while
- Leads to no cash
- Leads to reduced breeding
- Leads to decreased production
- Leads to high price
Livestock Cycles

High Prices → Expanded Production

Reduced Production ← Low Prices
U.S. CATTLE INVENTORY, 1880-2013

Source: USDA/NASS
U.S. CATTLE INVENTORY, 1880-2013

Source: USDA/NASS
A Growing Nation

U.S. CATTLE INVENTORY, 1880-2013

Mil. Head

Source: USDA/NASS
A Growing Nation

U.S. CATTLE INVENTORY, 1880-1928

Source: USDA/NASS
A Growing Herd

U.S. CATTLE INVENTORY, 1880-2013

Source: USDA/NASS
A Declining Herd

U.S. CATTLE INVENTORY, 1880-2013

Source: USDA/NASS
A Declining Herd

U.S. CATTLE INVENTORY, 1979-2013

Source: USDA/NASS
ESTIMATED AVERAGE COW CALF RETURNS
Returns Over Cash Cost (Includes Pasture Rent), Annual

$ Per Cow

Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC
Seasonality
CATTLE SLAUGHTER
Federally Inspected, Weekly

Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS
Monthly Average Heifer Prices,
Oklahoma City, 2003-2012

$/cwt

400-500 lb
500-600 lb
600-700 lb
700-800 lb
800-900 lb
1200-1400 lb

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Monthly Average Steer Premium,
Oklahoma City, 2003-2012

$/cwt

400-500 lb
500-600 lb
600-700 lb
700-800 lb
800-900 lb
1200-1400

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Dairy to Beef
In 1930, there were 2.5 milk cows for each beef cow. Today, there are 3.1 beef cows for each dairy cow. 

Source: USDA/NASS
Farm numbers
U.S. Farms with Beef Cows

Declining by 1.2% per year

Source: USDA/NASS
Beef Cows Per U.S. Cow Farm

Source: USDA/NASS
U.S. Farms with Milk Cows

Declining by 5.8% per year

Source: USDA/NASS
Milk Cows Per U.S. Dairy Farm

Source: USDA/NASS
Specialized Farms
## Portion of U.S. Farms with Livestock

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sheep</td>
<td>6.0%</td>
<td>7.4%</td>
<td>3.6%</td>
<td>4.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Beef</td>
<td>75.5%</td>
<td>72.3%</td>
<td>38.5%</td>
<td>41.7%</td>
<td>34.7%</td>
</tr>
<tr>
<td>Hogs</td>
<td>56.0%</td>
<td>34.2%</td>
<td>18.0%</td>
<td>9.9%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Dairy</td>
<td>67.8%</td>
<td>35.9%</td>
<td>12.6%</td>
<td>8.1%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Chicken</td>
<td>78.3%</td>
<td>38.3%</td>
<td>9.7%</td>
<td>4.6%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

Source: U.S. Census of Agriculture
## Portion of U.S. Farms Marketing Crops

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Corn</td>
<td>43.8%</td>
<td>31.9%</td>
<td>26.2%</td>
<td>16.4%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Wheat</td>
<td>23.4%</td>
<td>19.9%</td>
<td>15.2%</td>
<td>8.0%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>17.7%</td>
<td>22.8%</td>
<td>19.8%</td>
<td>14.9%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Cotton</td>
<td>10.3%</td>
<td>1.7%</td>
<td>1.8%</td>
<td>1.2%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>10.5%</td>
<td>8.0%</td>
<td>6.5%</td>
<td>2.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Orchards</td>
<td>7.1%</td>
<td>4.6%</td>
<td>6.0%</td>
<td>5.3%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4.2%</td>
<td>3.4%</td>
<td>3.2%</td>
<td>2.6%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: U.S. Census of Agriculture
The decline of calf slaughter
In 1950, calf slaughter was 35% of cattle and calf slaughter. Now 2.2% are slaughtered as calves.

Source: USDA/NASS
Choice vs Select
Boxed Beef Cutout Value, Weekly

$ Per Cwt

Source: USDA/ERS
Choice-Select Spread, Weekly

$ Per Cwt

Source: USDA/ERS
The cow herd is visibly different
Productivity
U.S. COW INVENTORY, 1920-2013

Mil. Head

Source: USDA/NASS
U.S. Beef Production, 1960-2012

U.S. beef production has increased by 80% since 1960

Source: USDA-NASS
U.S. Beef & Veal Production Per Cow, 1960-2012

adjusted for live imports & exports
Steer Carcass Weight, 1960-2012

Source: USDA/ERS
U.S. milk production has increased by 62% since 1960.
U.S. Milk Production Per Cow, 1960-2012

Source: USDA/NASS
Long Running Trends in Animal Agriculture

Why more efficient?

A. Knowledge accumulates

B. New technology

Technology is neither good nor bad, nor is it neutral.
Feed Supply
U.S. Corn Acres Planted, 1970-2013

2013: most since 1937

97.4 million acres in 2013

Source: USDA/NASS
U.S. Corn Production, 1970-13

14.0 billion bushels expected in 2013

Source: USDA/NASS
U.S. Average Corn Price, 1908-2012

Source: USDA/NASS
The darker the color, the more severe the drought
Grains: Feed and Residual

Bil. Bushels

Source: USDA/NASS
Market Share
U.S. Red Meat & Poultry Production, 1960-14

Billion Pounds

Source: USDA/ERS
U.S. Meat Production

Billion Pounds

Source: USDA/NASS

2.4% trend
U.S. Meat Production

Billion Pounds

Source: USDA/ERS
Pork production in 2014 is expected to exceed beef production for first time since 1952.

Source: USDA/ERS
U.S. Meat Consumption
U.S. Per Capita Meat Consumption, 1945-08

Source: USDA/ERS
U.S. Per Capita Meat Consumption, 1945-12

2012 per capita meat consumption lowest since 1991

Source: USDA/ERS
U.S. Per Capita Meat Consumption, 1945-14

Source: USDA/ERS

2012 per capita meat consumption lowest since 1991
U.S. Per Capita Meat Consumption

Pounds

Pork
Beef
Broilers
Turkey
Fish

Source: USDA/ERS
Meat Prices
Retail Price of Ground Beef & Boneless Chicken Breast, Monthly

Source: USDA/ERS
Retail Price of Ground Beef & Boneless Pork Chops, Monthly

Source: USDA/ERS
World Rankings
Top Beef Producing Countries

Source: USDA/FAS April 2013
Source: USDA/FAS April 2013
Top Beef Importing Countries

Source: USDA/FAS April 2013
Trade
U.S. Beef Imports & Exports

Source: USDA/ERS
U.S. Share of World Beef Trade

Percent

Source: USDA-FAS
Prices
Slaughter Steer Prices, 5 Area, monthly

$ Per Cwt

Source: USDA/ERS
Choice 1100-1300 Lb. Steers
Yield Grade 2-4, Nebraska Direct

Source: USDA-AMS
750-800 Lb. Steers
Medium & Large #1, Oklahoma City

$/cwt

$170

500-550 Lb. Steers
Medium & Large #1, Oklahoma City

$/cwt

Nebraska Slaughter Steer Price, Monthly Average 2000-2013

Thru Aug 2014 all cattle futures contracts are above $122 per cwt
Thru May 2014 all feeder cattle futures contracts are above $152 per cwt
Slaughter Steer Prices, 1960-2012

Dollars Per Hundredweight

Source: USDA/AMS
Milk Prices, 1960-2012

Source: Wisconsin, All Milk Prices
From 1960 to 2012, the deflated average farm price of.....

- Cattle declined by 39%
- Milk declined by 30%
- Hogs declined by 55%
- Eggs declined by 66%
- Chickens declined by 60%
- Turkeys declined by 67%
From 1960 to 2012, the Deflated Average Retail Price of….

- Beef decreased by 20%
- Pork decreased by 24%
- Chicken decreased by 57%
- Turkey decreased by 62%
In 1970, the average American spent 4.1% of their income to buy 194 lbs of red meat and poultry.

In 2011, the average American spent 1.64% of their income to buy 205 lbs of red meat and poultry.

Source: Livestock Marketing Information Center
Chinese Proverb:

A country in which food is plentiful has many problems.

A country without food has only one problem.
Any Questions?